Planned Actions Driven by Existing and Developing Programs

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	STATUS AS OF NOVEMBER 1996	CARRIED OVER INTO LO LAMP
1A. ACTIONS IN THE UNITE	D STATES				
1A1. Direct Industrial Discharge	es				
	of ensuring that all major permits clude more stringent water quality-			lable Technology Economically Achievable (BAT) limitations for ster quality standards.	toxic
i. Issue revised SPDES permit for Harrison Radiator	Final Permit	NYSDEC	Completed; routine monitoring	Final revised SPDES permit approved 1/28/94; all required reports approved	YES
ii. Issue revised SPDES permit for Crucible Materials Corporation - Specialty Metals Division.	FDF Variance Decision and Final Permit	USEPA/ NYSDEC	Completed; routine monitoring	SPDES permit renewed 8/1/93	YES
iii. Re-issue, as they expire, SPDES permits for all major dischargers	Final Permits	NYSDEC	Ongoing	Each permit is issued for five years. Under NYSDEC's Environmental Benefit Permit Strategy, most permits are reissued without substantive review and without change. NYSDEC uses a prioritization system to address necessary substantive changes (e.g., new BAT limits, new water quality-based limits, etc.) through permit modification.	YES
1A1b. Seek 100% compliance	ce with Final Effluent Limits on th	e part of major permi	ttees in the Lake Ontar	io basin.	
i. Return significant non- compliers to compliance or take formal enforcement action	Improved compliance	NYSDEC/ USEPA	Ongoing	The Great Lakes Enforcement Strategy for FY94 indicated 18 critical pollutant violations. Seven of these were evaluated as significant. Follow-up activities resulted in 3 returning to compliance and 4 involved formal enforcement actions. The City of Auburn is now under order to upgrade treatment facilities by May 1997. The 3 other facilities involved cadmium or zinc violations which have since been addressed.	YES
1A2 Indirect Industrial Discharg	e				
1A2a. In areas of the basin v	where USEPA is the control author	rity for the pretreatme	nt program, ensure tha	t Significant Industrial Users (SIUs) comply with categorical pretr	eatment limits.
i. Issue Administrative Orders against SIUs that have failed to provide USEPA with the required demonstration of compliance		USEPA	Completed	SIUs conduct continuous monitoring and report to USEPA on a semi-annual basis. Enforcement actions are taken as appropriate. No SIUs are in non-compliance at this time.	YES

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ii. Initiate follow up enforcement actions, as appropriate	Follow-up enforcement actions, as appropriate	USEPA	Ongoing	None required	YES
1A2b. In areas of the basin programs in the basin	, ,,	tment programs, audit	or inspect each progra	m at least once every 2 years to determine effectiveness. There a	re 14 approved
i. Audit or inspect each approved local pretreatment program at least once every 2 years	14 audits or inspections	USEPA/ NYSDEC	Every 2 years	On a statewide basis, at least 80% of pretreatment programs are audited or inspected each year.	YES
ii. Transmit deficiency letters or take enforcement actions, as necessary	Letters and enforcement as necessary	USEPA/ NYSDEC	Continuous	USEPA, NYSDEC and Onondaga County negotiations regarding the 1991 judicial complaint related to County pretreatment violations are continuing. Resolution of this issue is expected before the end of 1997.	YES
already have signed judicial order i. Canastota: Construction of new wastewater treatment facility	Enforceable Municipal Compliance Plan	NYSDEC	Completed	Facility under construction. Judicial Order issued. Final compliance extended to 10/2/89. Achieved FEL on May 1, 1989.	YES
of new wastewater treatment		NYSDEC	Completed	compliance extended to 10/2/89. Achieved FEL on May 1,	YES
ii. Fulton: Upgrade of existing wastewater treatment facility	Enforceable Municipal Compliance Plan	NYSDEC	Completed	Facility is being upgraded. Judicial Order issued. Final compliance extended to 3/31/90. Achieved FEL on March 31, 1990.	YES
iii. Seneca Falls: Upgrade existing wastewater treatment facilities	Enforceable Municipal Compliance Plan	NYSDEC	Completed	Facility is being upgraded. Judicial Order issued. Final compliance extended to 10/1/89.	YES
iv. Wetzel Road: Correction of dry weather overflows of raw sewage within collection system	Enforceable Municipal Compliance Plan	NYSDEC	Completed	Judicial Order issued. Oak Orchard diversion to be completed by 6/1/89 with other final corrective work by 1/1/90 All work completed; achieved FEL on January 19, 1990.	YES
v. Syracuse Metro: Elimination of dry weather overflows of raw sewage within collection system	Enforceable Municipal Compliance Plan	NYSDEC	7/1/88	The draft municipal compliance plan and draft environmental impact statement was submitted to NYSDEC on 1/11/96 as required by Judicial Consent Order. NYSDEC is reviewing these documents for completeness under SEORA.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	STATUS AS OF NOVEMBER 1996	CARRIED OVER INTO LO LAMP
vi. Leroy: Upgrade of existing waste facilities	Enforceable Municipal Compliance Plan	NYSDEC	Completed	Facility will be upgraded. Judicial Order issued and Final Compliance extended to 1/1/91. Achieved FEL.	YES
IA3b. Re-issue, as they expire, SPDES permits for all major municipal discharges	Re-issued Permits	NYSDEC	Upon permit expiration	Permits are issued for five year periods. When a permit is received for renewal it is revised to include FEL based upon either secondary treatment or water quality-based limits.	YES
IA4. Hazardous Waste Treatmen	nt, Storage and Disposal (TSD) fac	cilities			
IA4a. Seek 100% compliance wi	th permit conditions or interim sta	tus requirements.			
i. Ensure generator compliance with requirements for minimization of waste generation		USEPA/ NYSDEC	Ongoing	Currently, the nine identified land disposal facilities (LDFs) in the basin are in regulatory compliance.	YES
IA4b. Final permit decisions on	existing incinerator facilities				
i. Issue operating permit to Seneca Army Depot	Final permit	USEPA/ NYSDEC		The facility applied for a permit in 1993. The permit included permitting of an incinerator and corrective action. It has been determined that there is no need for an incinerator due to base closure; therefore the permit application is currently on hold. Remediation of the site will be complete by Superfund.	YES
i. Eastman Kodak	Final permit	USEPA/ NYSDEC		Hazardous waste management activities at the facility consist of a rotary kiln and multiple hearth incinerators, 26 federally regulated storage areas, and 4 waste container storage areas. NYSDEC is scheduled to public notice a draft Part 373 permit in the spring of 1997. The hazardous waste treatment and storage activities covered by the permit include storage of hazardous waste in tanks and containers and treatment of hazardous waste via incineration. The permit will also include a corrective action module.	YES

i. Issue final permit decision for all listed facilities	Final permit determination	USEPA/NYSDEC		Storage and treatment facilities are listed below	
USEPA RCRA I.D. #	Status *	Facility	USEPA RCRA I.D. #	Status *	Facility
NYD000631994	С	University of Rochester	NYD002233997	С	Camden Wire Co., Inc.
NYD000691162	C	Cheeseborough Ponds	NYD002234763	C	Hampshire Chemical
NYD000818781	P	Brooks Ave. Tank Farm RGEC	NYD002231272	C	General Electric Co., Auburn Plant
NYD001317072	C	Carrier Air Conditioning	NYD006977086	C	Roth Bros. Smelting Corp.
NYD010779569	C	Auburn Plastics Inc.	NY4572024624	C	Bell Test Center
NYD013277454	PX	Solvents and Petroleum Services,	NY0214020281	PX	Fort Drum - Dept. of the Army
		Inc.	NYD043815158	P	AKZO Chemical America
NYD002116192	C	Van de Mark Chemical Co., Inc.	NYD057770209	P	N.E. Environmental SVCS
NYD002231355	C	Prestolite Motor Division	NYD059385120	C	Martin Marietta
NYD002207744	C	Bausch & Lomb Frame Center	NYD980593487	C	Lowville Pesticide Storage Site
NYD002207751	C	Bausch & Lomb Optics Center	NYD980593024	C	Camden Wire Co., Inc.
NYD002209013	C	Southco, Inc.	NYD980593204	C	GMC Harrison Red. Div. Wastewater Trt.
NYD002210920	C	Garlock Inc. Div. of Colt Ind.	NYD075806836	C	McKesson Envirosystems
NYD002211324	P	Xerox	NYD079703120	C	Garlock Inc., Div. of Colt Industries
NYD002215226	C	GMC Delco Products	NYD095577342	C	Industrial Oil Tank & Line Cleaning
NYD002215234	С	GMC Rochester Products Div Lexington Ave.			
NYD002215341	C	Stuart-Oliver-Holz, Inc.			
NYD002220804	P	Olin Corp.			
NYD002225878	C	Residual Fuel Storage Tank			
NYD002227973	С	Construction Materials Product Division			
NYD002230092	С	Cambridge Filter Corp.			
* P-Permitting					
PX-Permitting Process C-Closing					
NiDB-Not in data base					

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
IA5. Inactive Hazardous Waste	sites				
IA5a. Cleanup of the Seven Exis	sting National Priorities List (NPL)	Sites	ı		1
i. Cleanup of the Byron Barrel and Drum site	RI/FS RD	USEPA	Report: 9/96	Record of Decision was signed in 9/89, which calls for the removal of contaminated soil, soil "flushing", and pumping/treating of groundwater. Remedial Design in progress.	YES
ii. Cleanup of the Clothier Disposal Site (Ox Creek)	RI/FS RD RA	USEPA/ NYSDEC USEPA USEPA	Completed	Remedial Action completed 9/92. Contaminated soils and drums of toxic chemicals were removed from the site. Groundwater pumping and treating was conducted. A clean soil and grass cover was placed over the site.	YES
iii. Cleanup of FMC Corporation Site	RI/FS RD RA ROD	NYSDEC	Report: 3/31/90 9/30/91 3/31/93 1/93	Record of Decision completed 3/93. Selected remedy includes containing contaminated soils on site, pumping and treating contaminated groundwater, restoration of surrounding wetlands, and fencing to restrict access to the site. RD/RA to be completed by 8/96.	YES
iv. Cleanup of the Fulton Terminals Site	RD	NYSDEC USEPA	Report: 3/31/89 1/93	Interim remedial activities include fencing the site, and removing tanks of toxic chemicals and contaminated soils. Final remedial actions will include pumping and treating contaminated groundwater, and "vacuuming" contaminants out of contaminated soils on-site. Remedial Design was completed in 5/95. Remedial Action began in 5/95.	YES
v. Cleanup of the Pollution Abatement Services Site (Wine Creek)	PRPs	USEPA	9/93	Remedial activities completed to date include demolition of old buildings, removal of drums of toxic chemicals, pumping and treating of contaminated groundwater, installation of a slurry wall to contain groundwater on site, and capping the site. Supplemental Remedial Design work addressed contaminants detected in groundwater outside of the existing containment system. Supplemental RI/FS completed 12/93. RA action complete. PRPs performing O&M.	YES
vi. Cleanup of the Sinclair Refinery Site	RI/FS RD(Landfill) RA ROD RD RA	USEPA	Report: 12/31/88 12/91 12/93 12/91 3/94 12/94	Site divided into two components: landfill and refinery. Remedial activities included removal of drums of contaminants and Genesee River bank stabilization. RD completed 9/94. RA completed 6/95.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
vii. Cleanup of the Volney Landfill Site	RD	USEPA	12/31/93	Negotiations in progress with PRPs to perform treatability study and RD. Remedial activities conducted to date include capping and fencing the site, and installing a leachate collection system. Surrounding private water supplies are being monitored for contamination (no site contaminants detected to date).	YES
IA5b. Evaluate additional sites for inclusion on the NPL	NPL Update	USEPA/ NYSDEC	Ongoing Activity	USEPA and NYSDEC are currently investigating inactive hazardous waste sites in the Lake Ontario Basin for possible inclusion on the NPL.	This activity is ongoing; no new sites were added to the NPL from the Lake Ontario Basin.
IA5c. Inventory all existing or potential hazardous waste sites in drainage basin areas to Lake Ontario	Inventory Update	USEPA/ NYSDEC	Ongoing Activity	An inventory called "Preliminary Review of New York State Inactive Hazardous Waste Disposal Sites in the Lake Ontario Basin" was produced by NYSDEC in 7/95. The inventory ranks 50 Lake Ontario sites according to their potential for contaminating the lake, and gives a brief summary of remediation progress at each site. The inventory will be updated periodically in the future.	YES
IA6. Combined Sewer Overflow	vs				
IA6a. Plan and construct CSO al	batement facilities to address CSO	-related water quality	violations		
i. Construct abatement facilities: Monroe County- Frank Van Lare STP	Completion of Construction/ Compliance	Monroe County	6/94	The following schedule for completion of interim segments is included in construction grant documents: Dewey-Eastman: 6/90 State-Mt. Hope: 11/92 Mt. Hope-Rosedale: 6/93 Transfer & Diversion Interceptors: 4/93 Lexington North: 3/94 Seneca Norton II: 6/94 The Dewey-Eastman segment was completed on schedule. The remaining work is continuing on schedule.	YES
ii. Develop CSO abatement plan for Onondaga County- Syracuse Metro	CSO/Abatement Plan	Onondaga County, NYSDEC	1/92	Onondaga County, NYSDEC and USEPA are in the process of negotiating an MCP which will include a CSO Abatement Plan. The MCP is expected to be ready for public notice in 8/96.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
IA6b. At renewal of SPDES permits, incorporate water quality based effluent limits into permits where CSOs are causing use impairments in the receiving waters	Re-issued Permits	NYSDEC	As permits expire		YES
IA7. Stormwater Discharges					
IA7a. Pursue increased regulation	on of stormwater discharges in acco	ordance with the sche	dule in the Water Qual	ity Act of 1987 for industrial and large municipal stormwater sys	stems
i. Issue application regulations	Regulations	USEPA	2/89	Proposed regulations were issued in 12/88. Regulations issued in 11/90 established NPDES permit application requirements for stormwater associated with industrial activity.	Completed
ii. Submit permit applications	Applications	Prospective permittees	2/90	Permittees are submitting applications under the draft regulations pending publication of final regulations; the deadline for permit issuance will be established in the final regulations.	YES
iii. Issue permits	Stormwater permits	NYSDEC	2/91	NYSDEC has finalized two general permits for industrial stormwater. Industries with SPDES permits already incorporate stormwater requirements.	YES
iv. Achieve compliance with permit limitations	Compliance	Permittees	2/94	Status under review.	YES
IA7b. Pursue increased regulation	on of stormwater discharges for Sn	nall Municipal Stormy	water Systems		
i. Submit permit applications	Applications	Prospective permittees	2/92	This effort remains on schedule.	YES
ii. Achieve compliance with permit limitations	Compliance	Permittees	2/96	This effort remains on schedule.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
IA8a. Identify waters that will not meet water quality standards due to non-point source pollution	Non-point Source Assessment Report pursuant to Sec. 319(a) of the Clean Water Act	NYSDEC	3/89	Assessment Report was updated in 1991 using a process outlined in NPS Management Program. Result of process was a doubling of the no. of segments on the Priority Water Problem (PWP) list. The PWP, now referred to as the PWL (Priority Waters List), was updated in 1996. The list now contains 1,426 waterbody segments. For 1,328 (93%) of these segments, non-point sources are the primary cause of the water quality impairment.	YES
IA8b. Prepare non-point source management program	State Non-point Source Management Program pursuant to Sec. 319(b) of Clean Water Act	NYSDEC	6/89	Will provide overview of State non-point source and four year strategic plan. USEPA approved the NYSDEC program on 1/4/90. NY now in the fourth year of implementation of NPS Management Program; grants received from USEPA have been used to fund staff, cooperative agreements (with SCS, State Soil and Water Conservation Committee, Cornell) and demonstration projects.	YES
IA8c. Implement State non- point source program	Implementation actions	NYSDEC, with other agencies as appropriate	Schedule to be developed pursuant to Sec. 319(b) of the Clean Water Act	Plan will target impacted waters on a watershed-by-watershed basis or address non-point source on a statewide basis; specific actions and annual implementation milestones will be identified. The NYSDEC grant application for Section 319 implementation funds was approved on 3/1/90. The program fund is being used and projects are currently being implemented.	YES
IA8d. Administration of the Pesticide Control Program	Pesticide registration; commercial pesticide applicator certification	NYSDEC	Ongoing	Pesticides are registered and permits are required for the distribution, sale, purchase, possession, or use of "restricted use" products; all commercial applicators must be certified. The Cooperative Extension Service also provides technical information and advice to farmers on pesticide use.	YES
IA9. Air Toxics					
IA9a. Determine impact of air sources on Lake Ontario	Develop comprehensive emission inventories Ambient air monitoring in vicinity of Great Lakes	NYSDEC USEPA GLNPO	In progress In progress	NYSDEC revision of Air Guide-1 was completed 11/89. USEPA technical and section 105 support to NYSDEC is ongoing.	YES
IA9b. Control air toxics	Operate air toxics program in NYS	NYSDEC USEPA	Operating	Ongoing Program	YES

ACTION	OUTPUT	RESPONSIBLE	DEADLINE	1996 STATUS	CARRIED
		PARTY			OVER INTO LO LAMP
IA9c. Define how atmospheric concentrations enter Lakes	Refine transport equations to better handle dry deposition and flux of atmospheric contaminants into Great Lakes	GLNPO	In progress	Work ongoing in conjunction with the Lake Michigan Mass Balance Study and the Integrated Atmospheric Deposition Network. The developed models will be applicable to all the Great Lakes.	YES
IA10. Oil and Hazardous Mater	ial Spills				
IA10a. Implement oil bulk storage regulations	Registration, testing, and inspection of oil storage facilities	NYSDEC	Ongoing		YES
IA10b. Maintain spill inventory data base	Identification of accidental spill dates and locations	NYSDEC	Ongoing		YES
IA10c. Implement hazardous substance bulk storage regulations	Registration of hazardous material storage facilities	NYSDEC	7/89	The registration program compiles information on installation, maintenance and monitoring of bulk storage facilities. The registration was completed on 7/15/89.	Completed
IA10d. Implement Section 313 of SARA	Reporting of toxic chemical releases in a publicly accessible data base	USEPA	6/89	The database came on line in 4/90. Subscription information is available to the public and government agencies via an USEPA hotline. USEPA has plans to also make the database available through terminals installed in selected libraries in the region.	Completed
IA11. Dredging and Dredged M	Iaterial Disposal				
IA11a. Identify all active dredging locations and open water dredged material disposal areas	Map of Disposal Areas	U.S. Army Corps of Engineers (USACE)	Ongoing	Most areas identified; update as needed.	YES
IA11b. Adopt appropriate acceptable levels for identified contaminants of concern in Lake Ontario sediments proposed for open water disposal	List of contaminants and criteria for use in guidelines	USACE/USEPA	Ongoing	USACE/USEPA to establish workgroup to meet this and subsequent commitments. The workgroup will include representatives from USACE, USEPA, NYSDEC and will include other experts, as appropriate.	YES
IA11c. Develop testing protocol to be implemented in USACE permit application reviews	Guidelines for standardized permit review	USACE/USEPA	Ongoing	Permit applications to USACE are joint applications to USACE/NYSDEC.	YES

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IA11d. Investigate existing conditions in and surrounding open water disposal sites	Development and completion of special studies, surveys.	USACE/USEPA	Ongoing	Studies to evaluate existing conditions could be accomplished as part of study projects currently planned, or to be developed.	YES
IA11e. Determine the suitability of continued use of the existing disposal sites in view of existing contaminant loading and increase in bottom elevations.	Development and completion of special studies, surveys	USACE/USEPA	Ongoing	Studies to evaluate existing conditions could be accomplished as part of study projects currently planned, or to be developed.	YES
IA11f. Identify operational procedures that will minimize adverse effects (e.g. capping)	Identification of existing and potential measures. An interagency workgroup will incorporate information from study projects in assessment of operational procedures	USACE/USEPA/ NYSDEC	Ongoing	NYSDEC in process of initiating dredging program development.	YES
IA11g. Identify areas ("hot spots") from which dredged material is unsuitable for open lake disposal	Maps	USACE	Ongoing	Dependent on IA11b. Some "hot spots" have been delineated. Complete coverage is dependent on final adoption of the "list of contaminants" (see IA11b above). The complete inventory is expected to be available in 6/90.	YES
IA11h. Investigate alternative disposal methods, including contained upland or lake sites	Identification of alternatives to open lake disposal	USACE/USEPA	Ongoing	Study projects planned or to be developed will provide additional information for review.	YES
IA11i. Develop decision framework for evaluation of alternative disposal methods	Decision-making framework	USACE/USEPA/ NYSDEC	Ongoing		YES
IA12. Solid Waste					
IA12a. Implement Part 360 of T	itle 6, NYCRR, in the Lake Ontari	o basin			T
i. Reduce by 8 to 10% the tonnage of the solid waste stream	Reduction in weight and volume of solid waste stream	NYSDEC	12/97	This effort is ongoing.	YES
ii. Reduce and recycle 50% of the solid waste generated in the Lake Ontario basin	Reduction/ recycling up to 50% of current waste stream. This initiative includes the 8 to 10% reduction described in i	NYSDEC	12/97	This effort is ongoing. Current statewide reduction is estimated at 10%.	YES

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iii. Install additional capacity in the operating waste-to- energy facilities to enable such facilities to handle the portion of the current waste stream that cannot be reduced, reused or recycled.	Additional waste to-energy facilities capacity	Local communities/ NYSDEC	12/97	This effort is ongoing. The Onondaga County facility is in operation.	YES
iv. Reduce number of environmentally unsound landfills operating in the basin	Closure of approximately 55 inadequate landfills that were in operation as of 6/87. Remaining landfills and new landfills shall be permitted in accordance with Part 360 and have liner systems and leachate accountability.	NYSDEC	12/97	This effort is essentially complete. There are currently 19 operating landfills in the Lake Ontario basin; 18 are under permit.	YES
v. Phase out incineration where feasible	Closure of 322 municipal, institutional, and private incinerators. This applies to facilities using combustion with little or no energy recovery, as opposed to full-scale waste-to-energy systems	NYSDEC	12/97	USEPA is scheduled to issue its own incinerator regulations during the last quarter 1990. NYSDEC has decided to delay issuing its own incinerator regulations until USEPA's are published. This delay is not expected to affect the 1997 deadline.	YES
IA13. Sludge Disposal					
IA13a. Continue present program activities in regard to wastewater treatment plant sludge.	Sample POTW sludges for identification of corrective measures for releases of hazardous waste	USEPA/ NYSDEC	Continuing	An annual sludge sampling program has been underway since 1983 and is ongoing. Appropriate enforcement actions are taken as necessary. No known cases of non-compliance at this time.	YES
IA13b. Review Part 360 solid waste regulations pertaining to sludge disposal activities following promulgation of federal regulation 40 CFR Part 503	Incorporate federal regulation into state regulation	NYSDEC	NYSDEC is hoping to issue draft Part 360 regulations for sludge management in the fall of 1993.	The final 40 CFR 503 regulations were published 2/19/93. NYSDEC will review these regulations and determine the appropriate criteria for Part 360.	YES
IA14. Ambient Water Monitorin	ng	1	1		

IA14a. Conduct ambient water quality monitoring (intensive basin study) in selected basins

OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
Report on Basin Study will provide data on the Niagara River input to Lake Ontario	NYSDEC	12/89	Basin studied under NYSDEC's Rotating Intensive Basin Studies (RIBS) program in 1987-1988 and 1993-94. NYSDEC has also used a device called "PISCES" to study sources of toxic chemicals into the Niagara River basin (results in 4/96 report "Trackdown of Chemical Contaminants to the Niagara River from Buffalo, Tonawanda, and North Tonawanda").	YES - follow up sampling planned.
Report on Basin Study	NYSDEC	12/91	NYSDEC has used a device called "PISCES" to study Lake Ontario tributaries (results in 4/96 report "Trackdown of Chemical Contaminants to Lake Ontario from New York State Tributaries"). Study of dioxin -contaminated sediments in 18-mile Creek in 1989-92 (results in 6/94 report).	YES
Report on Basin Study	NYSDEC	12/91	Basin studied under RIBS program in 1989-1990. Multi- disciplinary study of the lower Genesee River conducted in 1992 and 1993 (results in 8/95 report). The study included fish tissue sampling, fish population studies, sediment and water sampling, macroinvertebrate study, and sediment toxicity testing.	YES
Report on Basin Study	NYSDEC	12/91	Basin studied under RIBS program in 1989-1990. Oswego Harbor water quality was studied in 1994.	
Report on Basin Study	NYSDEC	12/91	Basin studied under RIBS program in 1991-1992. Contaminated sediments study ongoing.	YES
illance				
Report on toxic substances in fish. For contaminant trend surveillance	NYSDEC	3/90	Collect selected fish specimens for examination for contaminant concentration. Dioxin in Cayuga Creek fish (below Love Canal, NY) studied (results in 8/93 report). Spottail shiners collected and analyzed for toxic contaminant levels (results in 8/94 report). Fish health in Oswego Harbor studied in 1993 and 1994 (results in 4/95 report).	YES
	Report on Basin Study will provide data on the Niagara River input to Lake Ontario Report on Basin Study Report on Basin Study Report on Basin Study Report on Basin Study	Report on Basin Study will provide data on the Niagara River input to Lake Ontario Report on Basin Study NYSDEC Report on Basin Study NYSDEC	Report on Basin Study will provide data on the Niagara River input to Lake Ontario Report on Basin Study NYSDEC 12/91	Report on Basin Study Will provide data on the Niagara River input to Lake Ontario NYSDEC 12/89 Basin studied under NYSDEC's Rotating Intensive Basin Studies (RIBS) program in 1987-1988 and 1993-198. NYSDEC has also used a device called "PISCES" to study sources of toxic chemicals into the Niagara River basin (results in 4/96 report "Trackdown of Chemical Contaminants to the Niagara River from Buffalo, Tonawanda, and North Tonawanda"). Report on Basin Study NYSDEC 12/91 NYSDEC has used a device called "PISCES" to study Lake Ontario tributaries (results in 4/96 report "Trackdown of Chemical Contaminants to Lake Ontario from New York State Tributaries"). Study of dioxin-contaminated sediments in 18-mile Creek in 1989-92 (results in 6/94 report). Report on Basin Study NYSDEC 12/91 Basin studied under RIBS program in 1989-1990. Multi-disciplinary study of the lower Genesse River conducted in 1992 and 1993 (results in 8/95 report). The study included fish tissue sampling, fishe sampling, fishe sampling, samplation studies, sediment and water sampling, macroinvertebrate study, and sediment toxicity testing. Report on Basin Study NYSDEC 12/91 Basin studied under RIBS program in 1989-1990. Oswego Harbor water quality was studied in 1994. Report on basin Study NYSDEC 12/91 Basin studied under RIBS program in 1991-1992. Contaminated sediments study ongoing. Ilance Report on toxic substances in fish. For contaminant trend surveillance NYSDEC 3/90 Collect selected fish specimens for examination for contaminant concentration. Dioxin in Cayuga Creek fish (below Love Canal, NY) studied (results in 8/93 report). Spottal shiners collected and analyzed for toxic contaminant levels (results in 8/94 report). Fish health in Oswego Harbor

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IA15a. Reclassification of the waters of the Genesee River Sub-Basin	Amended stream classifications. Stream classifications are published in Title 6, Chapter X of the New York codes, Rules and Regulations (NYCRR)	NYSDEC	1989	Completed.			
IA15b. Reclassification of the water of the Lake Ontario (proper) Sub-Basin	Amended stream classifications	NYSDEC	1990	Completed.			
IA15c. Reclassification of the Seneca-Oneida-Oswego River Sub-Basin	Amended stream classifications	NYSDEC	1990	To be completed in 1991.			
IA15d. Reclassification of the Black River Sub-Basin	Amended stream classifications	NYSDEC	1990	To be completed in 1991.			
IA16. Potable Water - In accordance with the Safe Drinking Water Act amendments of 1986, all public water supply systems are to be in compliance with regulated drinking water contaminants IA16a. National Primary Drinking Water Regulations							
Basic monitoring for all CPWs	Compliance	Purveyors/ NYSDOH	Ongoing	Monitoring is required for certain microbiological, inorganic, organic and radiological contaminants.			

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
IA16b. Organic Contaminants					
i. Begin monitoring for 8 regulated VOCs and up to 51 unregulated organics at:	Monitoring Results	Purveyors/ NYSDOH	12/31/88	CPWs serving greater than 10,000 persons must complete monitoring by 12/88. Monitoring completed; no violations; resample in 1991.	
Brockport Village, Monroe County Water Authority, Metropolitan Water Board, and Oswego City					
ii. Begin monitoring for 8 regulated VOCs and up to 51 unregulated organics at: Albion Village, Ontario Town Water District, and Williamson Water District	Monitoring Results	Purveyors/ NYSDOH	12/31/89	CPWs serving populations between 3,300 and 10,000 must complete monitoring by 12/31/89. Albion Village monitoring complete; no violations; resample in 1992. Ontario Town monitoring complete; no violations; resample in 1992. Williamson monitoring complete; one violation found for methylene-chloride. Tests are ongoing to determine if lab contamination of samples was responsible for the violation. Follow up testing will be needed.	
iii. Begin monitoring for 8 regulated VOCs and up to 51 unregulated organics at: Lyndonville Village, Sodus Village, Sodus Point Village, Wolcott Village, Sackets Harbor Village, and Chaumont Village	Monitoring Results	Purveyors/ NYSDOH	12/31/91	CPWs serving less than 3,300 persons must complete monitoring by 12/31/91. Sodus Village monitoring complete; no violations; resample in 1992. Sodus Point monitoring complete; no violations; resample in 1992. Wolcott Village monitoring complete; no violations; resample in 1992. Chaumont Village monitoring complete; results available 9/90. Lyndonville monitoring complete in 6/90; available 12/90.	
i. Review and revise existing drinking water standards, as necessary	ter Standards Revised Drinking Water Standards	USEPA	continuous	The Safe Drinking Water Act Amendments of 1996 establish a new charter for the nation's public water systems, states, and USEPA in protecting the safety of drinking water. The amendments include new prevention approaches, improved consumer information, changes to improve the regulatory program, and funding for state and local water systems. USEPA is currently implementing the amendments.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
IA17a. Implement Great Lakes Water Quality Guidance	Revisions to New York State rules and regulations, and guidance documents addressing water quality standards, point source permit development, and antidegradation.	NYSDEC	3/97	Draft revisions will be public noticed by 4/97.	YES
IA17b. Implement New York State's Clean Air/Clean Water Bond Act	Capital construction projects in the Great Lakes basin	NYSDEC	N/A	Bond Act approved by voters.	YES

IB. Actions in Canada

IB1. INDUSTRIAL DISCHARGES (direct discharges to the lake and its tributaries).

IB1a. The Municipal-Industrial Strategy for Abatement (MISA) Program is a regulatory program designed to virtually eliminate persistent toxic contaminants from industrial sources entering Ontario's waterways. MISA was developed by MOE in consultation with industries, interest groups, and the general public. Monitoring regulations for each industrial sector were submitted for public review prior to their promulgation. Subsequently, Clean Water Regulations for nine major industrial sectors have been promulgated. The regulations establish daily and monthly loading limits or concentration limits for a long range of parameters. In addition, all effluent discharges are required to be non-lethal to rainbow trout and water fleas (Daphnia magna) when measured by a standard test. An added feature of the regulations is a requirement for each regulated plant to prepare a summary report on activities carried out under the regulations for the previous calendar year and to make this report available to the public upon request. All industries discharging to lakes and tributaries are required to operate treatment facilities under a Certificate of Approval (CofA) of Control Order (CO). The regulations provide for significant reductions of conventional and toxic substances and make a significant contribution to the reduction and elimination of substances on the Ministry's primary and secondary lists of Candidate Substances for Bans, Phase-outs, and Reductions. They are also a key component in a number of RAPs in terms of reducing contaminant loadings in Areas of Concern.

i. Organic Chemicals: Celanese Canada Ltd., Millhaven Dupont Canada Ltd., Kingston GE Plastics Canada Ltd., Cobourg Goodyear, Bowmanville Rohm and Haas, West Hill	Clean Water Regulation for Organic Chemical Industries.	МОЕ	Public Notice '88 Monitoring Reg. '89 Compliance Reg. 1993-94	- Clean Water Regulation promulgated 1995 Effluent limits will be in effect in 2/98.	YES
ii. <u>Iron and Steel:</u> Dofasco, Hamilton Stelco, Hamilton LASCO, Whitby Atlas Specialty Steels	Clean Water Regulations for Iron and Steel Industries.	МОЕ	Public Notice '89 Monitoring Reg. '89 Compliance Reg. 1994-95	- Clean Water Regulation promulgated in 4/95 Effluent limits will be in effect in 4/98 Stelco initiated coal injection in 1995, reducing coal use by 25% Dofasco is replacing a blast furnace which will reduce mercury releases - A Strategic Options process is underway to address benzene and PAHs.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
iii. Paper & Pulp Mills: Beaver Wood Fibre, Thorold Domtar Fine Paper, St. Catherines Domtar Containerboard Division, Trenton Kimberley-Clark of Can. Ltd., St. Catherines Strathcona Paper Co., Napanee QUNO Paper Co., Thorold Thorold Specialty Papers Inc. Sonoco, Trenton	Clean Water Regulation for Pulp and Paper Mills	МОЕ	Public Notice '89 Monitoring Reg. '89 Compliance Reg. 1993	- Clean Water Regulation in force since 1/1/96 All Lake Ontario mills were in compliance.	YES
iv. Petroleum Refineries: Petro Canada Products Ltd., Mississauga Petro Canada, Oakville	Clean Water Regulation for Petroleum Refineries.	МОЕ	Public Notice '87 Monitoring Reg. '88 Compliance Reg. 1993	- Clean Water Regulation in force since 2/96.	YES
v. <u>Metal Casting:</u> Chrysler Canada, Etobicoke	Clean Water Regulation for Metal Casting Industries.	МОЕ	Public Notice '89 Monitoring Reg. '89 Compliance Reg. 1991-92	- Plant is zero discharge - closed loop system.	YES
vi. Metal Mining & Refining: Cameco (3 sites: Port Hope, Port Granby & Welcome)	Clean Water Regulation for Metal Mining and Refining Industries.	МОЕ	Public Notice '89 Monitoring Reg. '89 Compliance Reg. 1993-94	- Clean Water Regulations promulgated 8/94 Effluent limits will be in effect by 8/97.	YES
vii. <u>Inorganic Chemicals:</u> UCAR Inc., Welland	Clean Water Regulation for Inorganic Chemicals Industries.	МОЕ	Public Notice '89 Monitoring Reg. '89 Compliance Reg. 1993-94	 Clean Water Regulation promulgated 2/95. Effluent limits will be in effect 2/98. 	YES
viii. Electric Power Generating Stations: Ontario Hydro (Lakeview, Pickering A and B, and Darlington and Lennox TGS)	Clean Water Regulation for Electric Power Generating Stations.	МОЕ	Public Notice '89 Monitoring Reg. '89 Compliance Reg. 1993-94	- Clean Water Regulation promulgated in 4/95 Effluent limits in effect 4/98.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
ix. Industrial Minerals Essoroc Inc., Picton Lafarge Inc., Bath St. Mary's Cement, Bowmanville St. Mary's Cement, St. Mary's St. Lawrence Cement, Mississauga	Clean Water Regulation for Industrial Minerals Industries.	МОЕ	Public Notice '89 Monitoring Reg. '91 Compliance Reg. '94	- Clean Water Regulation promulgated in 1994 Effluent limits in effect 8/97.	YES
IB1b. Federal Regulations of Di	irect Discharges				
Pulp and Paper Regulations	Regulation under section 34 of CEPA for 8 pulp and paper mills in Lake Ontario basin.	EC	Early notice given 1990. Public notice 1991. May 1992 Reg. promulgated. Compliance Reg. 12/92	- All regulations in effect.	YES
Wood Preservation Codes of Practice	Codes of practices for wood preserving operations using creosote, penta-chlorophenol, and chromate-copper-arsenate.	EC and MOE	4/88	- Ongoing audit visits by EC and MOE staff. Environment Canada is presently developing strategic options for the Wood Preservation sector.	YES
National Pollutant Release Inventory	Required annual reporting of emissions to land, air, and water from a list of 187 chemicals.	EC	Section 16 of CEPA promulgated 3/93. Industries must report releases for 1993 by 6/1/94.	- On schedule 1994 submissions by companies have been received.	YES
IB2. INDIRECT DISCHARG	ES AND SEWER USE				
a. Sewer-Use Control Program	Enforcement of local sewer use by-laws and addressing of contaminants based on municipal concerns/priorities.	Municipalities	1997	 Voluntary implementation of sewer use options such as pollution prevention, best management plans, Model Sewer Use By-law, and cost recovery options. Program under development in 96/97 with finalization in 1997. 	YES
b. Updated Model Sewer Use By-law and identified emerging needs	Inclusion of revisions based on municipal application and experience with 1988 Model Sewer Use By-law.	AMO, MEA, MOE, All interested municipalities.	1997	- Summarization of revisions/additions and incorporation into new Model Sewer Use By-law. - Program under development in 96/97 with finalization in 1997.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
c. Revision of Municipal Act (MA)	More effective implementation of sewer use programs and by- laws by municipalities through the inclusion of clearer powers in new MA.	MOE/MMAH, Municipalities		- MOE requested by municipalities to include clearer powers in the new MA to enhance the ability of municipal sewer use staff in the sewer use implementation. - Scheduling of MA revisions will determine implementation date of new MA and timing when options can be used.	YES
d. Enhanced Sewer Charge System (ESCS) for use by municipalities.	The ESCS will be offered for municipal adoption on a voluntary basis to promote pollution prevention by charging for any loading of any parameter.	MOE/MMAH, Municipalities		 - Under development in late 1996. - Municipal review and potential pilot. - MOE review with respect to MA and OWRA prior to approval of ESCS for municipal usage. 	YES
IB3. MUNICIPAL SEWAGE	FREATMENT PLANTS				1
a. Regulation	Effluent limits for CBOD, TSS, and P for all STPs.	MOE, owners of STPs		- Regulation under development for Ministerial consideration.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
b. Policy on Disinfection, Toxicity, and Phosphorus	Updating and confirmation of policies for STP operation.	МОЕ	1996/97	 Policies to be confirmed to address rationale for new policies based on impact on the environment and financial impacts to achieve the policies. To be confirmed and developed in 1996/97. 	YES
c. Performance self assessment requirements	Indication of need for optimization based on performance of process units in a STP.	Operators of STPs		Could be part of STP regulation.Under review.Status of package to be determined.	YES
d. Optimization of Sewage Treatment Plants	Increased efficiency of STP operations to meet limits and maximize hydraulic capacity.	Owners and operators of STPs	Ongoing	STB of MOE currently reviewing and implementing optimization in conjunction with Water Environment Association of Ontario (WEAO).	YES
e. Harmonization with Environment Canada's actions to address chlorinated effluents.	Matching of Federal requirements with Provincial regulations and/or guidelines	EC; MOE	Ongoing	Ongoing consultation with Environment Canada staff.	YES
IB4. COMBINED SEWER OV					
IB4a. Plan and construct CSO A	batement Facilities	1	I	Т	
i. Implement a comprehensive implementation plan to improve water quality in the St. Catharines area receiving waters.	Improved water quality in St. Catharines by reducing CSO and STP bypasses.	City of St. Catharines; City of Thorold; Regional Municipality of Niagara; MOE	Completed	 Construction of CSO control facilities in the Port Dalhousie and Geneva Street areas is complete. MOE supported construction with approximately \$1.2 M jobs; Ontario Capital Fund grant. 	YES
ii. Implement CSO and STP abatement alternatives to reduce CSO and STP bypasses in the regional municipality of Hamilton-Wentworth	Improved water quality in Hamilton by sizing CSO storage facilities to reduce CSO bypass and incorporate a process known as "Step Feed Control" to reduce STP bypasses by 90%.	Regional Municipality of Hamilton- Wentworth; MOE	Completed	 Construction of CSO control facilities in the James St. and Waterfront Park areas is complete. MOE supported construction of these first two tanks with approximately \$2.2 M jobs; Ontario Capital Fund grant. The construction of a third tank is underway. STP plan report to be completed. 	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
iii. Develop, install, and evaluate a computerized system for reducing the number and volume of CSOs.	Improved water quality in Cootes Paradise by reducing CSO bypasses.	Regional Municipality of Hamilton- Wentworth; MOE	Completed	 - Phase I is complete. - Phase II is underway. - MOE is supporting project with \$0.22 M Beach Improvement Program grant. 	YES
iv. Construct CSO storage facility, regional municipality of Hamilton-Wentworth.	Improved water quality by building a 72,000 m³ CSO storage facility to reduce overflow to one event per year for a 2,000 acre drainage area.	Regional Municipality of Hamilton- Wentworth; MOE	Completed	- Facility is preforming as designed.	YES
v. Implement a comprehensive plan to improve water quality in the Kingston area receiving waters.	Improved water quality and reduced number of beach postings by reducing CSO and STP bypass; improved stormwater quality.	City of Kingston; MOE	Completed	 In-line CSO control tanks have been constructed. MOE supported construction with approximately \$0.2 M jobs; Ontario Capital Fund grant. 	YES
vi. A study of water quality in Don River, Humber River, and Mimico Creek to provide base line data to guide future studies.	Humber River Water Quality Management Plan. Don River Water Quality Management Plan.	Metro Toronto; Area Municipalities; MOE (Toronto Area Watershed Management Strategy (TAWMS)	Completed	- Emery Creek stormwater management pond Environmental Study Report being prepared with \$0.05 M Waterfront Water Quality Improvement Program grant.	YES
vii. Develop CSO and STP abatement alternatives for Humber STP sewer drainage area.	Improved water quality and reduced number of beach closings by abating bypasses at Humber STP.	Metro Toronto; MOE	Completed	 Design of Black Creek (Rockcliffe) CSO Detention Tank and Keele St. Trunk Relief Sewer underway. MOE supporting design preparation with approx. \$0.2 M Beach Improvement Program grant. 	YES
viii. Develop CSO and STP abatement alternatives for the Main STP sewer drainage area.	Improved water quality and reduced number of beach closings by abating bypasses at Main STP.	Metro Toronto; MOE	Completed	 - The Main STP EA is ongoing. - MOE supporting EA preparation with approx. \$0.4 M Beach Improvement Program grant. - High rate treatment project evaluated the processes at bench scale. 	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
ix. Construct stormwater and CSO storage tanks (2,250m³ and 8,000m³) at Toronto Eastern Beaches.	Improved water quality and reduced number of beach closings by constructing retention tanks for CSO and stormwater runoff.	City of Toronto; MOE	Completed	 MOE supported construction of first tank with approx. \$0.4 M Beach Improvement Program grant. Monitoring has confirmed the effectiveness of the first tank. Tank concept reconfirmed in the City of Toronto's Sewer System Master Plan. Construction of the second tank is completed. 	YES
IB4b. Combined Sewer Overflo	ws - New Initiatives.				
Develop a phased, cost- effective implementation program for CSO and stormwater pollution control in the City of Toronto.	Sewer System Master Plan that improves water quality and reduces beach closings in the City of Toronto.	City of Toronto; MOE	Completed	 The City is implementing the Sewer System Master Plan. The first phase of the plan included the construction of the second tank in the Eastern Beaches mentioned above. The city is proceeding with the second phase which calls for the construction of a deep tunnel along the Western Beaches. 	YES
Develop a Provincial CSO control procedure.	Procedure F-5-5 Determination of Treatment Requirements for Municipal and Private Combined and Partially Separated Sewer Systems.	МОЕ	12/93	- Draft Procedure was posted on the electronic registry established under the Environmental Bill of Rights in 1996 for public review. - Document is being revised accordingly and will be finalized in 1996.	YES
IB5. STORMWATER DISCI	HARGES				
a. Prepare Master Drainage Plans (MDP) that include stormwater quality controls.	Master Drainage Plans (MDP)	Municipalities	Ongoing	 Ontario announced three documents to assist in Subwatershed and Watershed Planning in developing areas in 1993. MDP replaced by Subwatershed and Watershed Planning. 	YES
b. Prepare stormwater management plan.	Stormwater Management Plan	Developers	Ongoing	- Stormwater Management Plans are being developed according to Stormwater Management Practices Planning and Design manual that was completed in 1994.	YES
c. Include stormwater management controls during construction of new development.	Stormwater Management Control Programs	Developers	Ongoing		YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
d. Implement a comprehensive implementation plan to improve water quality in the St. Catharines receiving waters.	Improved water quality by reducing CSO and STP bypass as a result of a phased implementation plan.	City of St. Catharines; City of Thorold; Regional Municipality of Niagara; MOE	Completed	- See Table IB4a.	YES
e. Implement a comprehensive implementation plan to improve water quality in the Kingston area receiving waters.	Improved water quality by reducing CSO and STP bypass and improve stormwater quality as a result of phased implementation plan.	City of Kingston; MOE	Completed	- See Table IB4a. - Plan of STP expansion and use of polymer addition to enhance nutrient removal plan but no biological treatment.	YES
f. TAWMS (Toronto Area Watershed Management Strategy) A study of water quality (Don River, Humber River, and Mimico Creek) to provide base line data to guide future studies.	Humber River Water Quality Management Plan. Don River Water Quality Management Plan	Metro Toronto; MOE	Completed	- See Table IB4a.	YES
g. Develop state-of-the-art stormwater quality control measures.	Stormwater Quality Best Management Practices review document to assist municipalities	МОЕ	Completed	- Stormwater Quality Best Management Practices manual completed in 1991.	YES
h. Guide municipalities and developers to best stormwater quality control practices.	Stormwater Management Practices Planning and Design Manual to guide municipalities to control stormwater.	МОЕ	Completed	 Stormwater Management Practices Planning and Design manual completed in 1994. "Windows" based version of SWMP manual prepared and distributed. 	YES
i. Guide industrial direct discharges to prepare a Stormwater Control Plan to meet Stormwater Control Plan.	MISA Guidelines for conducting a Stormwater Control Study.	МОЕ	1993	- Draft document prepared.- Document is being finalized.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
j. Municipalities prepare subwatershed plans that include stormwater quality controls.	Subwatershed Plans	Municipalities	Voluntary	 Ontario has announced three documents to assist in Watershed and Subwatershed Planning in developing areas. Approximately 50 Subwatershed Plans are currently being developed or completed across the province. 	YES
IB6. OTHER NON-POINT S	OURCES				
a. Environmental Farm Plans Program	Integrated farm management plans prepared and reviewed by farmers.	Agricultural Adaptation Council; AAFC; OMAFRA	Ongoing	- Up to 7500 farmers have voluntarily completed Environmental Farm Plans and received incentives (\$1500) for positive environmental changes identified in their EFP Action Plan by 1996.	YES
b. Pesticide Management	1) Classification of pesticides, education, and licensing of applicators 2) 50% reduction in pesticideuse under Food Systems 2002.	MOE OMAFRA	Ongoing 2002	 MOE is currently revising the pesticide applicator licensing system to harmonize with recently developed national guidelines. Food Systems 2002 goal of 50% reduction of pesticides is proceeding on schedule. Field staff are delivering/developing Integrated Pest Management information for the industry. 	YES
c. Candidate Substances List for Bans, Phase-outs, or Reductions	Developed a list of hazardous, persistent substances that should be given priority for banning, phasing-out, or use/release reduction.	МОЕ	Completed	- A revised multimedia version of the Candidate Substances for Bans or Phase-outs report was released in 10/93 and five pesticides were banned: aldrin/dieldrin, chlordane, chlordecone (a breakdown product of mirex) and endrin. - Lake Ontario Critical Pollutants are on the primary list.	YES
d. Pesticide Container Management	Reduced potential for leaching from landfill sites by providing collection and recycling of agricultural and commercial pesticide containers.	Ontario Pesticide Container Management Committee which has representatives from Industry, Municipalities, Farm Groups, OMAF, and MOE.	Ongoing	 Program expanded to 175 collection sites in 1996. Plastic containers recycled into agricultural products such as fence posts. Pesticide residue test on the plastic resin and dislodgability tests on the plastic products are being conducted. 	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
IB7. AIR TOXICS					
a. Development of a comprehensive model to estimate deposition on Eastern North America	Quantify amounts (loadings) of toxics being deposited to Great Lakes and small remote lakes	Cooperative project between MOE, Germany, and EC (AES).	Completed	 - A working model for mercury deposition, in place in 1991, was used to identify data and model development needs. - A new mercury chemistry module has been developed and it is currently being put into the full model. - An updated mercury emission inventory for the United States has been obtained but has not as yet been adapted for use in model simulations. - A research institute in Germany is developing the necessary input data to run the mercury model for Europe. - Due to a lack of resources at MOE much of the current work is being done by the research institute in Germany. 	
b. Monitoring Atmospheric Deposition at six monitoring stations for IADN	Ontario integrated into the Integrated Atmospheric Deposition Network (IADN)	MOE; EC	Ongoing	The most recent loadings for 11 organochlorine (OC) substances, five metals, and 4 PAHs have been summarized in a multi-author paper. A large buoy equipped with sensors and computer equipment was placed mid-lake south of Toronto to measure the exchange of pesticides and OCS between the atmosphere and the Great Lakes. Findings are similar to previous estimates. However, it is now recognized that the Great Lakes can be a source of some toxic chemicals in some seasons.	YES
c. Hamilton Air Quality Initiative	Determination of sources, estimation of impacts on environment and human health in Hamilton-Wentworth, user friendly health write ups and short and long term recommendations for improvements in air quality in Hamilton-Wentworth	MOE; EC; Hamilton; McMaster University; Stakeholders		- Hamilton Initiative is currently being implemented to include not only health implications of air emissions but also environmental impacts. - Initiative involves multi-stakeholders in the integration of all available data into a GIS display, determining the relative importance of sources including transportation, developing a "user friendly" health review, polling attitudes of local citizens to air quality including economic valuation of improvements and actions to improve air quality. An educational component is also being developed with the Lung Association and the Boards of Education.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
d. Development of a comprehensive annual emissions inventory for SO ₂ , NO _x , VOC, CO, and particulate	Identification of point sources of air pollutants and estimation of their emissions around the Great Lakes	MOE; EC	1993	- Ongoing.	
e. Develop an air toxics emissions inventory around the Great Lakes (based on stationary source information compiled in the 1992 survey). Air toxics from area sources will also be estimated.	Improved determination of point sources of air pollutants around the Great Lakes	MOE; EC		- To be completed.	

IB8 POLLUTION PREVENTION

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
a. MOE promotes and encourages pollution prevention through a variety of instruments to target facilities discharging to the Great Lakes, including: - voluntary partnerships delivered through Memorandum of Understanding and other voluntary arrangements. The Ministry has established 6 MOUs to date (e.g. Motor Vehicle Manufacturers Association) and 8 other partnerships involving a number of sectors - voluntary partnerships delivered through the Pollution Prevention Pledge Program (P ₄). About 200 facilities are registered in the P ₄ program provision of tools, education and training to foster the implementation of pollution prevention - demonstrating Ministry leadership by incorporating pollution prevention principles in various MOE and government programs and policies	Reduction at the source of toxic substances/wastes	MOE; EC; Industry; Municipalities; Institutions; Associations	Ongoing	- Progress is being made towards eliminating the use of 65 targeted substances in the motor vehicle manufacturers sector which has many of its largest plants in Oakville, Toronto, and Oshawa. Of particular interest is the progress made to reduce or eliminate PCBs. MVMA reports a reduction of 889 tons of PCBs through various pollution prevention projects including: - destruction of PCBs at GM Canada, St. Catharines engine/foundry plant using PCB destruction technology developed by "Eco-Logic" - 800+ tons to be destroyed. - removal of some 10.5 tons of PCB containing electrical equipment from manufacturing areas at plants in St. Catharines and Oshawa.	YES

IB9 RAPs

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
a. Develop RAP for Hamilton Harbour	RAP	MOE; EC	Ongoing	Major causes of use impairments include point and non-point source pollution, contaminated sediment, combined sewer overflows, and shoreline and land use development. The RAP Stage 2 Recommended Plan was formally submitted to the governments in 2/93. Formal provincial and federal responses were issued in 11/94. The complete Stage 2 document including the implementation annex, which was completed in 7/95, was transmitted to the IJC by the governments in 9/95. Estimated costs for implementing the RAP are in the order of \$800-900 M, with the majority of costs falling upon municipalities for combined sewer overflow control and sewage treatment upgrading. About \$128 M has been spent on water quality and habitat improvements over the past five years; of which \$76 M has been by Stelco and Dofasco.	YES
b. Develop RAP for Metro Toronto Waterfront	RAP	MOE; EC	Ongoing	Polluted stormwater runoff from urban and rural sources, overflows of combined sewage, and sewage treatment plant discharges are all major concerns. The RAP Stage 2 Recommended Plan was completed in 5/94. The provincial response was transmitted to the Public Advisory Committee (PAC) in 7/96. The City of Toronto has built two detention tanks to capture stormwater and combined sewer overflows during storm events. The captured water is then processed by the sewage treatment plant after the storm flow recedes. The tanks, which cost \$12.8 M, have resulted in fewer beach closures. A major concern of the PAC continues to be implementation of the RAP recommendations and the organizational restructuring of the Metro Toronto and Region RAP process to facilitate this objective. A memorandum of understanding is being negotiated between MOE, EC, Metro Toronto, and Region Conservation Authority and the Waterfront Trust, with the latter taking the leadership of RAP implementation.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
c. Develop RAP for Port Hope	RAP	MOE; EC	Ongoing	Due to radionuclide content of the harbor sediment as a result of past waste management practices in the refining and processing of uranium and radium during the 1930s and 40s, the sediment has been classified as low-level historic radioactive waste. This has caused a cessation to maintenance dredging in the harbor. The Stage 2 process for this Area of Concern is dependent on the siting process for the establishment of a low-level radioactive waste site in Ontario. A host volunteer community is being sought in the siting process, and assessment work is ongoing at 3 sites.	YES
d. Develop RAP for Bay of Quinte.	RAP	MOE; EC	Ongoing	Diffuse agricultural inputs, contaminated sediment, sewage treatment plants, industrial discharges, and urban runoff are among the pollution sources contributing to use impairments. The Bay of Quinte Stage 2 Recommended Plan was submitted to the governments in 9/93. The PAC received the formal provincial response in 7/95, and the formal federal response in 8/95. The complete Stage 2 Report with the Implementation Annex is scheduled to be transmitted to the IJC in winter 1996. An aggressive land-owner contact program is addressing agricultural sources, and STP optimization is proceeding. To provide innovative "market-driven" solutions to achieve and maintain the recommended Bay of Quinte RAP phosphorus loading capacity, a study to assess the feasibility and opportunities for permit trading was initiated in 1996. The study includes a review of point to non-point source trading, an optimization model to identify potential trades, and a consideration of jurisdictional and program management needs. The action is needed to sustain environmental quality, allow innovative economic development to proceed, and provide cost-effective options for municipalities.	YES
IB10 SPILLS					

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
Investigate environmental damage by each spill to: evaluate adequacy of clean-up; and enforce legislated responsibilities imposed on dischargers	Ensures reporting to government of spills and cleanup of spilled materials.	МОЕ	Ongoing	- Annual reports ongoing.	YES
IB11.DREDGING AND DRED	GED MATERIAL DISPOSAL				
a. Identify all active	Maps of disposal areas	MOE	Ongoing	- Activities are ongoing.	YES
dredging locations and open water dredged material				- Maps are available for each region.	
disposal areas				- Information also available from Public Works Canada.	
b. Develop MOE sediment quality objectives and dredged soil disposal guidelines to take into consideration biological	Guidelines to be applied to dredging projects	МОЕ	Completed	 Sediment Quality Objectives, containing dredged material disposal guidelines, released 6/92 by Minister. MOE also has 3-volume handbook (2/91) for dredging and 	YES
effects				dredged material in Ontario.	
c. Identify areas where dredged sediment is unsuitable for open Lake disposal (hot spots) and areas where levels exceed the Lowest Effect Limit (LEL).	Maps of hot spots	MOE; EC	Ongoing	- RAP teams identify and compile tables or maps of contaminated sites in the AOCs. EC and MOE compile information on contaminated sediments outside of AOCs. EC assists in GIS mapping for AOCs where contaminated sediment is a priority.	YES
d. Investigate alternative disposal methods, including confined or land disposal	Identification of alternatives to open lake disposal	МОЕ	Ongoing	- Various demonstration projects.	YES
IB12. WASTE DISPOSAL SIT	TES				
Obtain site specific data to assess hazard it poses to humans and the environment	Site specific report	МОЕ	Ongoing	- No landfill sites with problems have been identified to date in the Lake Ontario basin.	YES
numans and the environment				- Each landfill site is handled on a case-by-case basis should problems be discovered.	
IB13. SOLID WASTE					

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
a. Review Ontario Regulation 347	Streamline requirements; gear site approvals requirements to risk; harmonize definitions of hazardous waste with the federal definitions	МОЕ	Ongoing	- Consulted on proposals as part of Regulatory Reform project from 7/31 to 10/15/96. Proposals suggest streamlining administrative and approvals processes. Revised regulation will be drafted in 1997.	YES
b. Product Stewardship	Propose to expand number of wastes to be included in Selected Waste Depots and streamline requirements under regulatory reform project. Propose to introduce a voluntary "manufacturer controlled network" provision	МОЕ	Ongoing	- Consulted on proposals as part of Regulatory Reform project from 7/31 to 10/15/96. Revised regulation will be drafted in 1997.	YES
IB14. SLUDGE DISPOSAL					
a. Monitor 15 parameters (11 of which are metals) in sludge that is to be disposed of on agricultural land	Ensure that sludge is safe for applying to agricultural land	МОЕ	Ongoing	- Formerly 2 guidelines on sewage sludge and other wastes. Consolidated into one guideline (Guidelines for the Utilization of Biosolids and Other Wastes on Agricultural Land, 3/96) with sampling and analytical protocols added.	YES
b. Monitor hazardous contaminants in sludge generated from municipal facilities as part of the MISA program	Review adequacy of standards for safety of sludge.	MOE; OMAFRA; MOH (through sludge utilization committee)	Ongoing		YES
c. Determine if sludge complies with standards for organic contaminants for sludge used on agricultural lands	To better ensure that sludge is safe for applying to agricultural land	MOE; OMAFRA; MOH	Ongoing		YES
IB15. AMBIENT WATER M	ONITORING				
IB15a. Conduct Ongoing Ambie	nt Water Quality Monitoring	T	1	·	
i. Provincial Water Quality Monitoring Network	Monitor water quality at approx. 300 stream stations and loadings at 17 major tributaries to the Great Lakes for nutrients, inorganics, organics, pesticides, and bacteria	МОЕ	Ongoing	- Data and interpretation available on request to Environmental Monitoring and Reporting Branch. Network reviewed annually.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
ii. Great Lakes Nearshore Monitoring	a. On a lake-by-lake rotation, systematically monitor nearshore long-term water quality, sediments, and biota in areas outside the Areas of Concern	МОЕ	Ongoing	- Data and interpretation available on request to Environmental Monitoring and Reporting Branch. Annual planning and surveys coordinated with Environment Canada.	YES
iii. Great Lakes Intake Monitoring	Regular data from 18 intakes for nutrients and algae	МОЕ	Ongoing	- Provides indication of nearshore trophic status with a good historical record.	YES
IB15b. Conduct Ongoing Monito	oring of Biota				
i. Fish Contaminant Monitoring Program	Annual publication "Guide to Eating Ontario Sport Fish" to ensure safety of public eating sport fish.	MOE/MNR	Ongoing	 - Monitoring continues at a growing number of sites annually. - 1995/96 "Guide to Eating Ontario Sports Fish" produced. 	YES
ii Juvenile Fish Contaminants Surveillance	Data summaries provided to the IJC biannually. Journal paper on Lake Ontario currently under preparation.	МОЕ	Ongoing	- "Present status and temporal trends of organochlorine contaminants in young of the year spottail shiners from Lake Ontario" was published in the Canadian Journal of Fisheries and Science.	YES
iii. Nearshore Phytoplankton Monitoring	Part of Nearshore Great Lakes Program. Data summaries provided to agencies upon request	МОЕ	Ongoing	- Sampling occurs annually at 5 water treatment plant intakes in the Lake Ontario basin.	YES
iv. Long Term Sensing Sites	Interpretive Report	МОЕ	Ongoing	 Monitor 12 long-term sites for PCBs, organochlorine pesticides, chlorophenols, chlorobenzenes. Sampling on Lake Ontario/ Niagara River conducted last in 1994; biota studies related to benthic communities. 	YES
IB15c. Conduct Site-specific Stu	dies				
i. Toronto Waterfront: Assessing contaminants associated with suspended particulates	Interpretive Report	МОЕ	Completed	- Data and interpretation available on request to Environmental Monitoring and Reporting Branch.	YES

ACTION	OUTPUT	RESPONSIBLE PARTY	DEADLINE	1996 STATUS	CARRIED OVER INTO LO LAMP
iv. Metro Toronto Waterfront trace contaminant inputs from CSOs and storm sewers, STPs, and 6 Tributaries.	Interpretive Report of contaminant inputs from municipal and tributary sources.	мое	Completed	Final Report: "Dry weather Discharge to the Metropolitan Toronto Waterfront 4/93." -Final Report: "Wet Weather Discharges to the Metropolitan Toronto Waterfront 1/92." -Draft Report: "Wet Weather Discharges to the Metropolitan Toronto Waterfront, 1/93." -Report "Tributary Discharges to Metropolitan Toronto Waterfront" is in progress.	YES
IB16. DRINKING WATER S	URVEILLANCE PROGRAM				
a. Monitor all drinking water supplies in Lake Ontario basin	DWSP monitors 18 locations which use Lake Ontario as a drinking water source and serve a combined population of 4.13 M. Samples gathered from raw, treated, and distribution sites are analyzed. At each location 190 parameters are analyzed, including pesticides, trihalomethanes, volatiles, chlorinated organics, dioxin, and furans from 2 -12 times per year. Notification is sent immediately if any parameter exceeds a health guideline.	МОЕ	Ongoing	 - Increased number of parameters studied from 160 to 190. - Bowmanville was added to the sites to be monitored in 1995. - A group of disinfection by-products, haloacetic acids, were added in 1995. - A survey of N-Nitrosodimethylamine (NDMA) was initiated in 1995. - Reports for 1993-1995 drinking water quality data, for individual treatment facilities, will be available from the Environmental Monitoring and Reporting Branch in 12/95. 	YES
b. Review existing Drinking Water Standards and revise as necessary	Stringent water quality standards objectives including health, aesthetic, and operational guidelines. The health guideline for trihalomethanes (THMs) was lowered to 100 ug/L in 6/96.	MOE; EC	Ongoing	 Ontario's Drinking Water Objectives numbers were revised in 1990. The revised publication is expected to be available 9/94. 	YES

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a. Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA) In 7/96, COA was signed by both Ontario and the federal government. The agreement called for the coordinated action to restore, protect and conserve the Great Lakes ecosystem in three areas or streams: 1. restore degraded areas 2. prevent and control pollution 3. conserve human and ecosystem health.	Progress on specific targets within each area or stream	MOE; EC; MNR; OMAFRA; industrial and municipal associations; DFO; Health Canada; Agriculture Canada	Ongoing	- First progress Report under the 1994 Canada -Ontario Agreement was released in the fall of 1995. Key highlights with respect to reductions of toxic substances under COA Stream 2 include: - approx. 35% or 3600 tons of Ontario's high-level liquid PCBs (10,500 tons) have been decommissioned and placed in storage as of 1994 a small amount (240 tons or 1.3%) of Ontario's high-level PCB wastes (18,600 tons) in storage was destroyed at Smithville, ON approx. 17,000 tons of low-level PCB liquids or 15% of Ontario's total low-level PCBs (115,000 tons) have been destroyed. The remainder consists of 98,000 tons of PCB waste including 90,000 tons of contaminated soil Total annual releases in Ontario of seven Tier 1 substances (alkyl lead, benzo(a)pyrene, hexachlorobenzene, mercury, octachlorostyrene, 2,3,7,8 - TCDD and TCDF) are estimated to be about 23,000 kg. Dioxin/furan releases are less than 1% of the total A COA report is in progress on the objective to confirm zero discharge of five priority pesticides in Ontario PCB destruction and decommissioning progress in 1995 is being compiled and reviewed Updating of progress towards the goal to achieve a 90% reduction is being tracked through voluntary partnerships such as pollution prevention (p4 MOUs), ARET, and SOP.	YES
b. Incineration Guidelines	Guideline A-7 - Combustion and Air Pollution Control Requirements for New Municipal Waste Incinerators. The guideline provides rigorous emission limits for new municipal waste incinerators. The new emission limits are for particulate, hydrogen chloride, sulphur dioxide, lead, cadmium, and mercury.	мое	Completed	Guidelines were released in 1/96.	YES

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c. Decommissioning Guidelines (Guidelines for Use as Contaminated Sites in Ontario)	The guideline provides advice and information to property owners and consultants to use when assessing the environmental condition of a property, when determining whether or not a restoration is required, and in determining the kind of restoration needed to allow continued use or reuse of the site.	МОЕ	Completed	Released in 6/96 replacing the Ministry's Guidelines for the Decommissioning and Clean-up of Sites in Ontario (2/89) and the Interim Guidelines For the Assessment and Management of Petroleum Contaminated Sites in Ontario (8/93).	YES
d. Landfill Standards	Comprehensive new landfill standards are needed to ensure new or expanded landfills are fully protective of the environment, and to bring additional clarity and certainty to the landfill approval process.	МОЕ		The public comment period on proposed standards was from 6/17 to 9/696. The review of public comments and preparation of final standards is underway. Key elements of the proposed standards include requirements for siting, design, operation, monitoring, protecting ground and surface waters, and controlling landfill gas.	YES
e. Standards Development	Development of environmental quality standards to protect human health and the ecosystem.	МОЕ	Ongoing	The proposal for a 3-year standard setting plan was posted on the Environmental Bill of Rights Environmental Registry on 10/1096 for a 60 day comment period. The Ministry has developed a comprehensive set of standards in the last 20 years, including: Provincial Water Quality Guidelines, Provincial Sediment Quality Guidelines, Ontario Drinking Water Objectives, Air Standards, Biota Guidelines, Ontario Typical Range (for soils, vegetation, snow), Soil and Ground Water Criteria for Use at Contaminated Sites, Compost Guidelines and Sewage Sludge Guidelines.	YES
f. PCB Tracking Technology	International partnership to develop an innovative computer model for predicting groundwater flow and contaminant migration at Smithville Industrial Park PCB storage site.	MOE; University of Waterloo; McMaster University; EC; USEPA	Ongoing	MOE signed an agreement on 5/10/96 with the University of Waterloo. The University will head an international partnership team. The model could be used at other contaminated sites with similar geological characteristics.	YES

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Accelerated Reduction / Elimination of Toxics (ARET)	Voluntary reductions of emissions of 101 targeted substances to air, land, and water of both direct and indirect discharging industry and businesses. The goal is 90% reduction of persistent bioaccumulative toxic substance emissions and a 50% reduction of other toxic substances emissions by the year 2000. By tying this voluntary program to the National Pollutant Release Inventory the amounts of chemicals reduced will be tracked.	EC		- On Schedule. - To date 10,000 tons of toxic substances have been reduced or are targeted for reduction by the 170 responding companies.	YES
Priority Substances List	44 substances are required to undergo scientific risk assessments.	EC		24 of the 44 substances were determined to be toxic and control options to reduce exposure are being evaluated under the Strategic Options Process. A second Priority Substance List (PSL2) of the 25 substances was published in 12/95.	YES
The Environmental Choice Program	Identification of products that are less harmful to the environment than other similar products on the market by the Ecologo.	EC		Established program where manufacturers apply to be Environmental Choice products. Their products are evaluated against criteria and receive a license to use the Ecologo symbol. Hundreds of products have been licensed with the logo.	YES
Pest Control Products Act	Requires all pest control products used or imported into Canada to be registered and carry labeling as prescribed in the Regulation.	EC		Ongoing	YES

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New Substance Notification Regulation	Improved control over hazardous chemical use in Canada. Prior to introducing new substances in Canada CEPA requires importers and manufacturers to submit data for the government to assess.	EC		The "Domestic Substances List" and "Non-domestic Substances List" were published in 1/91.	YES